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United Airlines flight 232 crashed at Sioux City,Iowa, on 19 July 1989. The primary rescue workers were the men and women from the 185th Air National Guard Group. Because of the massive death and destruction caused by the crash, a psychiatric consultation team was requested by the U. S. Air Force Surgeon General to assist the Air National Guard personnel. The consultation had four goals: (1) provide consultation to the Air National Guard on the mental health of the community; (2) provide direct psychiatric services on an acute basis and referral for follow-up care, if necessary; (3) train mental health personnel as consultants following disasters; and (4) develop and implement a research plan which would address the health consequences of the rescue work, both immediate and long-term. The consultation included community-oriented interventions directed toward reducing the effects of psychological stress on high risk groups. This paper describes the consultations and the one year follow-up.

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Community Consultation Following a Major Air Disaster

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United Airlines flight 232 crashed at Sioux City, Iowa, on July 19, 1989. The primary rescue workers were the men and women from the 185th Air National Guard Group. Because of the many deaths and massive destruction caused by the crash, a psychiatric consultation team was requested by the U.S. Air Force Surgeon General to assist the Air National Guard personnel. The consultation had four goals: (1) provide consultation to the Air National Guard on the mental health of the community; (2) provide direct psychiatric services on an acute basis and referral for follow-up care, if necessary; (3) train mental health personnel as consultants following disasters; and (4) develop and implement a research plan that would address both the immediate and long-term health consequences of the rescue work. The consultation included community-oriented interventions directed toward reducing the effects of psychological stress on high-risk groups. This paper describes the consultations and the 1-year follow-up.

In July, 1989, United Airlines flight 232 crashed at Sioux City, Iowa, with 296 passengers on board (Parker & Phillips, 1989). After the crash, triage and medical treatment areas were established on taxiways near the runway, and survivors who needed medical attention were taken to hospitals. One hundred eighty-four people survived, including approximately 75 who walked away from the crash (Jacobs, Quevillon, & Stricherz, 1990). Among the rescue workers were volunteers from the 185th Air National Guard (ANG) Tactical Fighter Group which was co-located with the Sioux City municipal airport. Over the next several days, volunteers from the ANG removed the dead from the wreckage; searched for pieces of aircraft wreckage, bodies, and personal effects of the passengers; and assisted with the identification and autopsies of the bodies.

Workers exposed to the stresses of disasters in which mass death has occurred may develop symptoms of psychiatric distress (Rundell, Ursano, Holloway, & Silberman, 1989). Consultation can be of value in preventing morbidity after the trauma (Raphael, 1984). For these reasons, a consultation team was sent to the crash site by the U.S. Air Force Surgeon General to provide assistance to the local commander and the unit that had been involved in the rescue efforts. The team leader, a psychiatrist (R.J.U.), constructed the team to be representative of the community it would be serving: military and civilians, males and females. It consisted of six people: two psychiatrists and four psychologists. Two mental health care providers from a nearby Air Force base were

included in the team to be trained as consultants following disasters and to assure continuity of consultative care. The goal of the community consultation was to prevent later psychiatric distress and to facilitate the recovery of the rescue workers in the ANG community.

Initial Consultation

Our team arrived at the crash site approximately 48 hours after the disaster. During the next 3 days, we assessed and provided recommendations to the following groups who were under high stress: body handlers, fire fighters, security police, spouses of the rescue workers, medical personnel, and community leaders.

The mortuary was set up in a hangar on the ANG base after the crash. Volunteer body handlers assisted with the identification of the bodies, management of their personal effects, preparation of records, and other tasks. Such work involving exposure to the dead can be extremely stressful; individuals respond with a wide range of reactions (Ursano & McCarroll, 1990). Before workers left the scene each day, they were encouraged to come alone or together, to a room located away from the mortuary to discuss their experiences with us. Families usually do not want to visit a morgue; such access should be prevented, if possible. It was reported that a family member with "political pull" was able to gain access to the temporary mortuary and that the experience had been very stressful (Chapman, 1989).

The fire fighters were among the first to arrive at the crash site. Their primary mission was to extinguish the fire; however, while so doing, many encountered survivors calling for assistance for themselves or for help in locating others. Many fire fighters wondered afterward if they had done the right thing at the time.

At the crash site, security policemen stood guard over the wreckage and the bodies that had not yet been recovered from the scene. Many of the bodies were covered, but some could not be due to their location. Sights such as an exposed hand with a wedding ring were distressing, particularly during hours of darkness.

Spouses of rescue workers are often involved in the community response and are usually the major supports for the rescue personnel. During the disaster there is not time for them to learn what their spouses are doing, and they often worry about the safety and welfare of their mates. The workers themselves are often reluctant to discuss their reactions to the disaster with their spouses, not wishing to describe to them the gruesomeness they have seen. This removes what is ordinarily the worker's strongest support. The guard unit leader and his wife met with members of the consultation team and discussed the stresses on spouses; a plan to hold meetings of spouse groups about 1 to 2 weeks following the disaster was developed. These groups were planned to give the spouses a chance to be informed, to express their fears and concerns, and to receive support.

The flight surgeon of the base was the primary physician on site for the ANG personnel. Some minor medical problems occurred during the rescue, but his primary job was expected to be after the disaster when some individuals might seek him out. We urged him to be alert to patients with somatic complaints; the precipitant might be the psychological stress. Our advice was to have extended office hours, to talk about the incident as the first intervention, and to use medication sparingly. We also suggested that he use his additional role as a member of the community to facilitate the return to normalcy. It was recommended that as the volunteers returned to their workplaces he contact their supervisors. We suggested that he alert them to the likelihood of temporary

behavioral changes among the rescue workers, such as irritability, and allow them the possibility of some time off before returning to work. Time off is usually viewed positively by workers who interpret it as a sign of caring. For those who wanted to return immediately to work, we advised that their wishes should be respected, but they and their supervisors were cautioned against overworking as a defense against distress.

The team leader made himself available to the commander and his staff to act as a "sounding board" for issues as they came up, to plan activities that would promote community recovery, to provide information about what to expect at various phases of the operations, and to assess individuals referred to the commander. The team also served as a buffer for the leader by meeting with reporters and providing information directly to the media.

The consultation team leader had talked with the commander about the advantage of the community knowing of his sadness and grief. When a chaplain provided a worship service at the end of the mortuary activities, the commander used this opportunity to express his grief. Later, many who had attended spoke of their relief knowing "even the commander feels sad."

Meetings were planned so the various work groups could hear brief presentations on topics related to the disaster from the commander, the chaplain, the physician, work supervisors, and a mental health provider. These meetings provided updates on the tasks and a general awareness of people's reactions. In addition to providing information, they encouraged people to talk about the distresses that occurred. After a discussion of these issues with the consultants, they were told that everyone, regardless of the job performed, should expect some distress and that such disturbances were normal. Intrusive thoughts, unwanted reminders of the bodies, and mild disturbances in sleeping, eating, and in interpersonal relations were discussed. Recovery was described as a normal, expected process; however, premature "sealing over" and the expectation of too rapidly returning to "business as usual" were discouraged.

The unit's newspaper and daily bulletins were used to communicate the scheduled events such as discussion groups, awards and recognitions, news about survivors, clean-up, and other items of interest. Many of the rescue workers eagerly sought information about what had happened following the disaster. Many visited the hospital to see the individuals they had saved. While some people wanted to avoid news to put the events behind them, most benefited from wide distribution of clear, factual information. This facilitated recovery through improved understanding of what had actually happened then and later.

Follow-on Consultation to the Rescue Community

Personal and telephone contact was maintained with the unit leader and his wife over the following 12 months. Two members of the team returned to the unit about 6 weeks after the disaster and again at 12 months. At 6 weeks, a return to normalcy was evident. The workers were able to discuss the disaster events with less affect and reconstruct their actions on the day of the disaster in an unemotional, but not detached, manner. They acknowledged that there were difficult choices that had to be made. Individuals were able to share histories and see their actions in a larger context than had been evident after the crash. These descriptions of the events and the knowledge obtained were used to further their recovery rather than to invoke guilt, which had been their initial reaction. For example, when a fire truck did not function at the scene of the crash, the fire fighters felt great guilt. It was later determined that the equipment

had failed and they could not have known about it beforehand. That knowledge removed their sense of guilt. The fire fighters told other fire fighting groups about the mechanical failure so the same breakdown would not happen again.

Some rescue workers were labeled heroes during the disaster. These individuals had been selected for awards and honors and were often asked to give speeches. Some were away from home extensively which interfered with their family life. Beginning at 6 weeks and continuing for the year after the disaster, one of the heroes experienced marital difficulties. Consultations with heroes acknowledged the pleasure of their recognition as well as the cost. Individual meetings with spouses and couples were held as needed. We recommended planning family activities and vacations as a way of returning to normal.

In the intervening months, the issue of awards and recognition to other deserving rescue workers had not been resolved by higher ANG officials. Some of the workers were now angry at this perceived failing on the part of their organization. Anger at other rescue workers and leadership is often suppressed during and immediately after a disaster. Thus, the anger was viewed by the consultation team as a sign of the return to normal, indicating that feelings and emotions could now be talked about.

The consultation team provided advice to the community on the planning of a 1-year anniversary commemoration of the disaster to honor the caregivers as well as those who died. This was an important step in community recovery.

At 1 year, more signs of the return to normalcy were evident. One person described his life as "normal," but he continued to see the events of the crash "like running a movie." The fire fighters were able to talk with irony about a guard member who had been at the crash and then had been the victim of a fatal lawn mower accident several months later. Several rescue workers had become involved in new careers, some in state disaster planning.

Conclusions

Consultation to a community in the aftermath of a disaster is an essential requirement in individual and group recovery. Several lessons were learned by our team in this effort.

1. Consultation to disaster should not be limited to a "one-shot" intervention. The length of a consultation should be determined by the extent of the trauma, the nature of groups affected, the types of problems seen, the frequency of requests, and the presence of evidence for the onset of recovery. In this case, the 1-year anniversary marked that time.

2. Strong pressures are brought on community leaders in a disaster. Decisions must be made, often with little time and with incomplete information. Often the channels of communication with subordinates are disrupted such that the normal mechanisms of working out decisions do not occur, including the normal encouragement and explanations for decisions. This situation puts additional stress on supervisors and subordinates.

3. The expression of grief by the commander was valuable in community recovery. This has been termed "grief leadership" (Ingraham, 1988). Community leaders are required to provide assistance for others, but often receive none themselves and can become hidden victims (Wright, Ursano, Bartone, & Ingraham, 1990). Aftercare, including rest and respite, having an available "sounding board," and reentry into the family unit, was considered helpful for the leadership as well as for the volunteer workers.

4. While recognition of individual effort is not often voiced during the course of a disaster, it is important at a later time. Commendations facilitate the recovery process in many ways. They can indicate the end of the event, show participants that their work was appreciated and its difficulty recognized, and help them feel pride in what they accomplished. Differential award policies, however, can be destructive when individuals perceive that awards are given only to persons in charge and not to those who worked "on the line."

5. Those who did not participate directly in the disaster work also felt a great deal of stress, particularly guilt. Among these were those people who could not confront the events, who were away from the scene at the time, were unable to return in time to help, and those whose job was important, but not directly involved in rescue events (directing traffic, for example).

6. Long after the disaster, the effects of the trauma had become embedded in some people's lives. Symbolic meanings were evident. Personal losses were often connected to the disaster or were "the cause." Supervisors were urged to hear these complaints.

Research is an essential element in our approach. Without research results, hypotheses cannot be tested and well-intentioned approaches become confused with knowledge. Research on this disaster has continued, focusing on rescue workers, their spouses, and a control ANG group, located 90 miles away, which did not participate in the disaster. Future research results based upon empirical data will provide quantitative information upon which to base an assessment of the community recovery process in addition to the descriptive information presented here.

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